

**AMENDMENTS TO THE CLAIMS:**

1. (Currently amended) A semiconductor circuit system comprising:  
a first signal line; and  
n circuit sections, where n is an integer greater than 2, each of which includes an input terminal and an output terminal,  
wherein said input terminals of only predetermined k ones of said n circuit sections are connected to said first signal line, where k is an integer equal to or greater than 2 and less than n, and  
said output terminal of an m<sup>th</sup> one of said n circuit sections is connected to said input terminal of an (m+k)<sup>th</sup> one of said n circuit sections, where m is an integer varying between 1 and n-k, thereby k of said n circuit sections are activated at a given time.
2. (Original) The semiconductor circuit system according to claim 1, wherein each of said n circuit sections starts an operation in response to a start signal on said first signal line and stops the operation a predetermined time after the start of the operation.
3. (Previously presented) The semiconductor circuit system according to claim 1, wherein each of said n circuit sections comprises:  
a differential input circuit; and  
a register circuit,  
wherein said differential input circuit is activated in response to a start signal on said

Serial No. 09/893,598  
Docket No. 01USFP644-M.K.

first signal line to start an operation and stops the operation a predetermined time after the start of the operation.

4. (Previously presented) The semiconductor circuit system according to claim 1, wherein each of said n circuit sections comprises:

a differential input circuit; and

a register circuit,

wherein said differential input circuit is activated in response to a start signal on said first signal line to start an operation and stops the operation in response to an output from said register circuit.

5. (Original) The semiconductor circuit system according to claim 4, wherein the output from said register circuit is used as said start signal for a next one of said n circuit sections which is connected to said circuit section.

6. (Previously presented) The semiconductor circuit system according to claim 1, wherein each of said n circuit sections comprises:

a plurality of differential input circuits;

a plurality of register circuits connected to output terminals of said plurality of differential input circuits, respectively; and

a control circuit including a latch circuit, said control circuit connected with at least one of said plurality of register circuits as a specific register circuit and said plurality of

differential input circuits,

wherein said specific register circuit executes a predetermined operation using a first signal outputted from a corresponding one of said plurality of differential input circuits, and outputs a second signal to said latch circuit when the operation ends, and

said control circuit activates said plurality of differential input circuits in response to a third signal to operate and stops the operations of said plurality of differential input circuits in response to said second signal.

7. (Previously presented) The semiconductor circuit system according to claim 6, wherein:

said plurality of register circuits comprises at least one set of registers and at least one set of data registers, and

said specific register circuit includes said set of registers.

8. (Original) The semiconductor circuit system according to claim 7, wherein each of said registers outputs a pulse signal to a corresponding one of said data registers when said first signal is supplied, such that data are written in a corresponding one of said data registers, and propagates said first signal to a next one of said registers which is connected to said register, and

a last one of said registers outputs said first signal as said second signal.

9. (Original) The semiconductor circuit system according to claim 6, wherein said control circuit comprises:

a first latch which latches said second signal;

a second latch which is set in response to said third signal and is reset in response to said second signal latched by said first latch; and

a switch which activates said plurality of differential input circuits when said second latch is set and inactivates said plurality of differential input circuits when said second latch is reset.

10. (Previously presented) The semiconductor circuit system according to claim 1, wherein said n circuit sections are respectively provided on different semiconductor chips.

11. (Previously presented) A semiconductor circuit comprising:

a plurality of differential input circuits;

a plurality of register circuits connected to output terminals of said plurality of differential input circuits, respectively; and

a control circuit including a latch circuit, said control circuit connected with at least one of said plurality of register circuits as a specific register circuit and said plurality of differential input circuits,

wherein said specific register circuit executes a predetermined operation using a first signal outputted from a corresponding one of said plurality of differential input circuits, and outputs a second signal to said latch circuit when the operation ends, and

said control circuit activates said plurality of differential input circuits in response to a third signal to operate and stops the operations of said plurality of differential input circuits in response to said second signal.

12. (Original) The semiconductor circuit according to claim 11, wherein said plurality of register circuits comprises at least one set of registers and at least one set of data registers, and

said specific register circuit includes said set of registers.

13. (Original) The semiconductor circuit according to claim 12, wherein each of said registers outputs a pulse signal to a corresponding one of said data registers when said first signal is supplied, such that data are written in a corresponding one of said data registers, and propagates said first signal to a next one of said registers which is connected to said register, and

a last one of said registers outputs said first signal as said second signal.

14. (Original) The semiconductor circuit according to claim 11, wherein said control circuit comprises:

a first latch which latches said second signal;

a second latch which is set in response to said third signal and is reset in response to said second signal latched by said first latch; and

a switch which activates said plurality of differential input circuits when said second

latch is set and inactivates said plurality of differential input circuits when said second latch is reset.

15. (Currently amended) A liquid crystal display apparatus, comprising:

a liquid crystal display panel;

a horizontal drive unit; and

a vertical drive unit,

wherein said horizontal drive unit further comprises:

a first signal line; and

n circuit sections, where n is an integer greater than 2, each of ~~which~~ said n circuit sections ~~has~~ having an input terminal and an output terminal, input terminals of only predetermined k ones of said n circuit sections are connected to said first signal line, where k is an integer equal to or greater than 2 and less than n, and said output terminal of an m<sup>th</sup> one of said n circuit sections is connected to said input terminal of an (m+k)<sup>th</sup> one of said n circuit sections, where m is an integer varying between 1 and n-k, such that k of said circuit sections are active at a given time.

16. (Previously presented) The apparatus according to claim 15, wherein each of said n circuit sections starts an operation in response to a start signal on said first signal line and stops the operation a predetermined time after the start of the operation.

17. (Previously presented) The apparatus according to claim 15, wherein each of said n circuit sections includes a differential input circuit and a register circuit, and

said differential input circuit is activated in response to a start signal on said first signal line to start an operation and stops the operation a predetermined time after the start of the operation.

18. (Previously presented) The apparatus according to claim 15, wherein each of said n circuit sections comprises:

a plurality of differential input circuits;

a plurality of register circuits connected to output terminals of said plurality of differential input circuits, respectively; and

a control circuit including a latch circuit, said control circuit connected with at least one of said plurality of register circuits as a specific register circuit and said plurality of differential input circuits,

wherein said specific register circuit executes a predetermined operation using a first signal outputted from a corresponding one of said plurality of differential input circuits, and outputs a second signal to said latch circuit when the operation ends, and

said control circuit activates said plurality of differential input circuits in response to a third signal to operate and stops the operations of said plurality of differential input circuits in response to said second signal.

Serial No. 09/893,598  
Docket No. 01USFP644-M.K.

19. (Previously presented) The apparatus according to claim 18, wherein said control circuit comprises:

a first latch which latches said second signal;

a second latch which is set in response to said third signal and is reset in response to said second signal latched by said first latch; and

a switch which activates said plurality of differential input circuits when said second latch is set and inactivates said plurality of differential input circuits when said second latch is reset.

20. (Previously presented) A method of reducing power consumption in a liquid crystal display device having a liquid crystal display panel with a horizontal drive unit and a vertical drive unit, wherein said horizontal drive unit comprises a first signal line and  $n$  circuit sections, where  $n$  is an integer greater than 2, each of which said  $n$  circuit sections has an input terminal and an output terminal, said method comprising:

connecting said first signal line to input terminals of only predetermined  $k$  ones of said

$n$  circuit sections, where  $k$  is an integer equal to or greater than 2 and less than  $n$ ; and

connecting said output terminal of an  $m^{\text{th}}$  one of said  $n$  circuit sections to said input terminal of an  $(m+k)^{\text{th}}$  one of said  $n$  circuit sections, where  $m$  is an integer varying between 1 and  $n-k$  so that  $k$  of said  $n$  circuit sections are active at a given time.



21. (Previously presented) A semiconductor circuit system, comprising:

n circuit sections (n being an integer equal to or greater than 2), each of which has an input terminal and an output terminal,

wherein:

k (k being an integer satisfying  $2 \leq k < n$ ) of said n circuit sections are started in response to control signals at said input terminal of each of said k circuit sections,

said output terminal of an m-th one ( $1 \leq m \leq n-k$ ) of said n circuit sections is connected to said input terminal of an (m+k)-th one of said n circuit sections, and

said (m+k)-th circuit section is started in response to an output signal outputted from said output terminal of said m-th circuit section so that k of said circuit sections are active at a given time.

22. (Previously presented) A semiconductor device, comprising:

an input terminal;

a plurality of differential input circuits;

a plurality of register circuits provided for outputs of said plurality of differential input circuits, respectively;

a flip-flop circuit configured to latch an output of one register circuit of a predetermined stage among said plurality of register circuits; and

a latch circuit connected with said input terminal and said flip-flop circuit,

wherein:

said one register circuit of the predetermined stage carries out a predetermined

Serial No. 09/893,598  
Docket No. 01USFP644-M.K.

operation by using a first output signal outputted from one of said plurality of differential input circuit corresponding to said one register circuit, and outputs a second output signal to said flip-flop circuit after the predetermined operation is ended,

said flip-flop circuit latches said second output signal, and

said latch circuit starts said plurality of differential input circuits in response to an input signal from said input terminal, and stops operations of said plurality of differential input circuits in response to said second output signal latched by said flip-flop circuit.